--However, in such a conventional cooling device, cooling fins are fixed, and their surfaces are smooth, so a significantly thick heat boundary layer 4 is spontaneously formed on a cooling fin when the air flows along the smooth surface of the cooling fin, as shown in FIG. 3. As a result, heat cannot be effectively released from the cooling fin 2. This is because an air space 5 accumulated in a heat boundary layer serves to resist heat transfer so as to inhibit heat from being released from the surface of the cooling fin 2. Thermal resistance within the accumulated air space 5 increases as distance from the surface of the cooling fin 2 decreases. The air space 5 is motionless on the surface of the cooling fin 2, so only heat transfer due to diffusion effects occurs, and there is not convection. As shown in FIG. 3, the air is forcibly made to flow toward the cooling fin 2 by the blast fan 3 at a speed of V_0. In a portion distance from the accumulated heat boundary layer 4 on the cooling fin 2, the air flows at a speed of about V_0, but the air flows at a speed of about V_1 which is less than V_0 when it passes through the heat boundary layer 4. The air flows at a speed of V_2 which is less than V_1 in the underlying accumulated air space 5. The flow of the air actually halts on the surface of the cooling fin 2. The halt of the air flow is due to friction and viscous force working between the air and the cooling fin 2, in view of aerodynamics. Accordingly, a large cooling fin is required to release a large amount of heat. However, as the size of a cooling fin increases, the surface area of the cooling fin and thermal resistance increase. So, the size of a cooling device is larger, and a heat transfer rate per unit volume decreases. This goes against the trend of miniaturizing parts, for example, the parts of a computer.--

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